CONTAMINANT-RESISTANT OPTICAL MOUSE AND CRADLE

Abstract

A contaminant-neutralizing cradle comprises a base and a support surface configured to removably receive a coherently-illuminated mouse. A neutralizing element is disposed on the support surface for alignment with at least one exposed surface of an optics module of the mouse and is configured to neutralize the optical effect of a contaminant on the at least one exposed surface. A method of neutralizing contaminants for an optical mouse comprises providing a mouse containing an optics module having at least one surface exposed to an opening of the mouse and interposing a barrier in the mouse between a contaminant and the at least one exposed surface. A method of detecting contaminants comprises aligning an optics module of a mouse with an imaging surface, obtaining a first image of the imaging surface, via application of coherent illumination from the optics module to the imaging surface, analyzing the first image to identify an interference pattern associated with a contaminant, alerting a user if a parameter of the interference pattern exceeds a threshold value.